March 1, 1960

Dear John:

Re: My Letter of 12 Feb. 1960 {Orig to Mr. {Thermo Cy to [redacted] of ref

25X1A

You asked two questions:

1. How much money do we need to spend under PO-660 on experimentation and development including mockups and prototypes?

2. What work is involved?

I prefer to answer the second question first because what we need to do determines how much we should spend.

The principal operations I envision in this process are:

1. Chemical mixing
2. Web energizing
3. Web storage
4. Film processing using the web principle
5. Washing and drying of processed film
6. Film duplication
7. Film handling equipment
8. Quality control

A very brief discussion of each of these problems is attached with an indication of what we should be doing now to learn more about the needed designs. As you can see, the most pressing need is to design and fabricate mockups of the film processor and determine the limitations of the proposed method of attack. Some investigation should also be made of the washing-drying problem and, if necessary, on the problem of energizing the web.

Now as to cost. I think you can readily see from the discussions in the attachment why I have to talk about figures as wide apart as $75,000 to $150,000 for one set of equipment. If at this time you want to proceed only far enough to demonstrate the practicality of the idea (i.e., do the work mentioned in the preceding paragraph) I suggest that you authorize us to spend up to $20,000 against the existing FY 60 budget.

25X1A

[redacted]

E. L. G.

cc: JLB
ABS

4. Film Processing (Continued)

There are many questions as yet unanswered such as: how fast can we wind and/or unwind; can we activate with the processor; how much tension is required; will web and pelloid glue together when handled in this manner; how must web and film be handled in unwinding; etc.

This area, then, is one on which we must concentrate.

5. Washing - Drying

We are certain that the film must be washed and dried before printing, but this is a conventional operation that needs only a little experimentation to determine the general parameters for the machine.

6. Film duplication

We visualize a printer very similar to those we already have and this would require little if any development.

7. Film Handling Equipment

Such auxiliary and accessory devices as might be needed would, in all probability, be Chinese copies of existing equipment. At worst, we might need a few items which would not be difficult to design or fabricate so no development is required.

8. Quality Control

This is more a matter of procedures and techniques and is a natural outgrowth of the process as finally evolved.